

SequenceListing69544.txt
SEQUENCE LISTING

<110> Children's Cancer Institute Australia for Medical Research
KAVALLARIS, Maria
VERRILLS, Nicole M.

<120> DETERMINING DRUG RESISTANCE

<130> 69544-2

<140> 10/549,831

<141> 2006-11-30

<150> 2003901239

<151> 2003-03-18

<150> PCT/AU04/00331

<151> 2004-03-18

<160> 19

<170> PatentIn version 3.5

<210> 1

<211> 1845

<212> DNA

<213> Homo sapiens

<400> 1
atggaagaag agatcgccgc gctggtcatt gacaatggct ccggcatgtg caaagctggt 60
tttgctgggg acgacgctcc ccgagccgtg tttccttcca tcgtcgggcg ccccagacac 120
cagggcgta tgggtggcat gggccagaag gactcctacg tgggcgacga ggcccagagc 180
aagcgtggca tcctgaccct gaagtacccc attgagcatg gcatcgtcac caactgggac 240
gacatggaga agatctggca ccacaccttc tacaacgagc tgcgcgtggc cccggaggag 300
caccagtgct tgctgaccga ggccccctg aacccaagg ccaacagaga gaagatgact 360
cagattatgt ttgagacctt caacaccccc gccatgtacg tggccatcca ggccgtgctg 420
tccctctacg cctctgggcg caccactggc attgtcatgg actctggaga cggggtcacc 480
cacacggtgc ccatctacga gggctacgcc ctccccacg ccatcctgcg tctggacctg 540
gctggccggg acctgacca ctacctcatg aagatcctca ctgagcgagg ctacagcttc 600
accaccacgg ccgagcggga aatcgtgcgc gacatcaagg agaagctgtg ctacgtcgcc 660
ctggacttcg agcaggagat ggccaccgcc gcatcctcct cttctctgga gaagagctac 720
gagctgcccc atggccaggt catcaccatt ggcaatgagc ggttcgggtg tccggaggcg 780
ctgttccagc cttccttcct gggatatgaa tcttgcgga tccacgagac caccttcaac 840
tccatcatga agtgtgacgt ggacatccgc aaagacctgt acgccaacac ggtgctgtcg 900
ggcggcacca ccatgtaccc gggcattgcc gacaggatgc agaaggagat caccgccctg 960
gcgcccagca ccatgaagat caagatcatc gcacccccag agcgcaagta ctcggtgtgg 1020

SequenceListing69544.txt

atcgggtggct ccatacctggc ctcactgtcc accctccagc agatgtggat tagcaagcag	1080
gagtacgacg agtcggggccc ctccatcgtc caccgcaaata gcttctaaac ggactcagca	1140
gatgcgtagc atttgctgca tgggttaatt gagaatagaa atttgcccct ggcaaatagca	1200
cacacctcat gctagcctca cgaaactgga ataagccttc gaaaagaaat tgtccttgaa	1260
gcttgatatct gatatacagca ctggattgta gaacttggtg ctgattttga ccttgatttg	1320
aagttaactg ttccccttgg tatttgttta ataccctgta catatctttg agttcaacct	1380
ttagtacgtg tggcttgggc acttcgtggc taaggtaaga acgtgcttgt ggaagacaag	1440
tctgtggctt ggtgagctctg tgtggccagc agcctctgat ctgtgcaggg tattaacgtg	1500
tcagggctga gtgttctggg atttctctag aggctggcaa gaaccagttg ttttgtcttg	1560
cgggtctgtc aggggttgaa agtccaagcc gtaggacca gtttccttc ttagctgatg	1620
tctttggcca gaacaccgtg ggctgttact tgctttgagt tggaagcggg ttgcatttac	1680
gcctgtaaat gtattcattc ttaatttatg taaggttttt tttgtacgca attctcgatt	1740
ctttgaagag atgacaacaa attttggttt tctactgtta tgtgagaaca ttaggccccca	1800
gcaacacgtc attgtgtaag gaaaaataaa agtgctgccg taacc	1845

<210> 2
 <211> 1845
 <212> DNA
 <213> Homo sapiens

<400> 2	
atggaagaag agatcgccgc gctgggtcatt gacaatggct ccggcatgtg caaagctggt	60
tttgctgggg acgacgtcc ccgagccgtg tttccttcca tcgtcgggcg cccagacac	120
cagggcgta tgggtggcat gggccagaag gactcctacg tgggcgacga ggcccagagc	180
aagcgtggca tcctgaccct gaagtacccc attgagcatg gcatcgtcac caactgggac	240
gacatggaga agatctggca ccacacctc tacaacgagc tgcgcgtggc cccggaggag	300
caccattgc tgctgaccga ggccccctg aacccaagg ccaacagaga gaagatgact	360
cagattatgt ttgagacctt caacacccc gccatgtacg tggccatcca ggccgtgctg	420
tccctctacg cctctgggcg caccactggc attgtcatgg actctggaga cggggtcacc	480
cacacgggtc ccatctacga gggctacgcc ctccccacg ccatacctgcg tctggacctg	540
gctggccggg acctgaccga ctacctcatg aagatcctca ctgagcgagg ctacagcttc	600
accaccacgg ccgagcggga aatcgtgcgc gacatcaagg agaagctgtg ctacgtcgcc	660
ctggacttcg agcaggagat ggccaccgcc gcatcctcct cttctctgga gaagagctac	720
gagctgcccg atggccaggt catcaccatt ggcaatgagc ggttccgggtg tccggaggcg	780
ctgttccagc cttccttcct gggatatgaa tcttgccgca tccacgagac caccttcaac	840

SequenceListing69544.txt

tccatcatga agtgtgacgt ggacatccgc aaagacctgt acgccaacac ggtgctgtcg	900
ggcggcacca ccatgtaccc gggcattgcc gacaggatgc agaaggagat caccgccctg	960
gcgcccagca ccatgaagat caagatcatc gcacccccag agcgcaagta ctcggtgtgg	1020
atcgggtggct ccatcctggc ctactgtcc accttccagc agatgtggat tagcaagcag	1080
gagtacgacg agtcggggccc ctccatcgtc caccgcaaat gcttctaaac ggactcagca	1140
gatgcgtagc atttgctgca tgggttaatt gagaatagaa atttgcccct ggcaaattgca	1200
cacacctcat gctagcctca cgaaactgga ataagccttc gaaaagaaat tgtccttgaa	1260
gcttgatatc gatatcagca ctggattgta gaacttgttg ctgattttga ccttgatttg	1320
aagttaactg ttccccctgg tatttgttta ataccctgta catatctttg agttcaacct	1380
ttagtacgtg tggcttggtc acttcgtggc taaggtaaga acgtgcttgt ggaagacaag	1440
tctgtggctt ggtgagtctg tgtggccagc agcctctgat ctgtgcaggg tattaacgtg	1500
tcagggtcga gtgttctggg atttctctag aggctggcaa gaaccagttg ttttgtcttg	1560
cgggtctgtc agggttggaa agtccaagcc gtaggacca gtttcctttc ttagctgatg	1620
tctttggcca gaacaccgtg ggctgttact tgctttgagt tgggaagcgg ttcattttac	1680
gcctgtaaat gtattcattc ttaatttatg taaggttttt tttgtacgca attctcgatt	1740
ctttgaagag atgacaacaa attttggttt tctactgtta tgtgagaaca ttaggccccca	1800
gcaacacgtc attgtgtaag gaaaaataaa agtgctgccg taacc	1845

<210> 3
 <211> 1845
 <212> DNA
 <213> Homo sapiens

<400> 3	
atggaagaag agatcgccgc gctggtcatt gacaatggct ccggcatgtg caaagctggt	60
tttgctgggg acgacgtcc ccgagccgtg tttccttcca tcgtcgggcg ccccagacac	120
cagggcgta tgggtggcat gggccagaag gactcctacg tgggcgacga ggcccagagc	180
aagcgtggca tcctgaccct gaagtacccc attgagcatg gcatcgtcac caactgggac	240
gacatggaga agatctggca ccacaccttc tacaacgagc tgcgcgtggc cctggaggag	300
caccagtgct tgctgaccga ggccccctg aacccaagg ccaacagaga gaagatgact	360
cagattatgt ttgagacctt caacaccccg gccatgtacg tggccatcca ggccgtgctg	420
tccctctacg cctctgggcg caccactggc attgtcatgg actctggaga cggggtcacc	480
cacacggtgc ccatctacga gggctacgcc ctccccacg ccatcctgcg tctggacctg	540
gctggccggg acctgaccga ctacctcatg aagatcctca ctgagcgagg ctacagcttc	600
accaccacgg ccgagcggga aatcgtgcgc gacatcaagg agaagctgtg ctacgtcgcc	660

SequenceListing69544.txt

ctggacttcg agcaggagat ggccaccgcc gcacccctcct cttctctgga gaagagctac	720
gagctgcccc atggccagggt catcaccatt ggcaatgagc ggttccggtg tccggaggcg	780
ctgttccagc cttecttctt gggatatgaa tcttgcgga tccacgagac caccttcaac	840
tccatcatga agtgtgacgt ggacatccgc aaagacctgt acgccaacac ggtgctgtcg	900
ggcggcacca ccatgtaccc gggcattgcc gacaggatgc agaaggagat caccgccctg	960
gcgcccagca ccatgaagat caagatcatc gcacccccag agcgcaagta ctcggtgtgg	1020
atcgggtggct ccatcctggc ctactgtcc accttccagc agatgtggat tagcaagcag	1080
gagtacgacg agtcggggccc ctccatcgtc caccgcaaatt gcttctaaac ggactcagca	1140
gatgcgtagc atttgctgca tgggttaatt gagaatagaa atttgcccct ggcaaattgca	1200
cacacctcat gctagcctca cgaaactgga ataagccttc gaaaagaaat tgtccttgaa	1260
gcttgatatct gatatcagca ctggattgta gaacttggtg ctgattttga ccttgatttg	1320
aagttaactg tcccccttgg tatttgttta ataccctgta catatctttg agttcaacct	1380
ttagtacgtg tggcttggc acttcgtggc taaggtaaga acgtgcttgt ggaagacaag	1440
tctgtggctt ggtgagctcg tgtggccagc agcctctgat ctgtgcaggg tattaacgtg	1500
tcagggtgta gtgttctggg atttctctag aggctggcaa gaaccagttg ttttgtcttg	1560
cgggtctgtc aggggttgaa agtccaagcc gtaggacca gtttccttct ttagctgatg	1620
tctttggcca gaacaccgtg ggctgttact tgctttgagt tggaagcggg ttgcatttac	1680
gcctgtaaat gtattcattc ttaatttatg taaggttttt tttgtacgca attctcgatt	1740
ctttgaagag atgacaacaa attttggttt tctactgtta tgtgagaaca ttaggccccca	1800
gcaacacgtc attgtgtaag gaaaaataaa agtgctgccg taacc	1845

<210> 4
 <211> 1845
 <212> DNA
 <213> Homo sapiens

<400> 4	
atggaagaag agatcgccgc gctggtcatt gacaatggct ccggcatgtg caaagctggt	60
tttgctgggg acgacgctcc ccgagccgtg tttccttcca tcgtcgggcg ccccagacac	120
cagggcgta tgggtggcat gggccagaag gactcctacg tgggcgacga ggcccagagc	180
aagcgtggca tcctgaccct gaagtacccc attgagcatg gcacgtcac caactgggac	240
gacatggaga agatctggca ccacaccttc tacaacgagc tgcgcgtggc cccggaggag	300
caccagtgct tgctgaccga ggccccctg aacccaagg ccaacagaga gaagatgact	360
cagattatgt ttgagacctt caacaccccc gccatgtacg tggccatcca ggccgtgctg	420
tccctctacg cctctgggcg caccactggc attgtcatgg actctggaga cggggtcacc	480

SequenceListing69544.txt

```

cacatggtgc ccatctacga gggctacgcc ctccccacg ccatcctgcg tctggacctg      540
gctggccggg acctgaccga ctacctcatg aagatcctca ctgagcgagg ctacagcttc      600
accaccacgg ccgagcggga aatcgtgcgc gacatcaagg agaagctgtg ctacgtcgcc      660
ctggacttcg agcaggagat ggccaccgcc gcacctcctt cttctctgga gaagagctac      720
gagctgcccc atggccaggt catcaccatt ggcaatgagc ggttccggtg tccggaggcg      780
ctgttccagc cttccttcct gggtatggaa tcttgcgcca tccacgagac caccttcaac      840
tccatcatga agtgtgacgt ggacatccgc aaagacctgt acgccaacac ggtgctgtcg      900
ggcggcacca ccatgtaccc gggcattgcc gacaggatgc agaaggagat caccgccctg      960
gcgcccagca ccatgaagat caagatcatc gcacccccag agcgcaagta ctcggtgtgg     1020
atcgggtggc ccatcctggc ctactgtcc accttcagc agatgtggat tagcaagcag     1080
gagtacgacg agtcgggccc ctccatcgtc caccgcaa at gcttctaaac ggactcagca     1140
gatgcgtagc atttgctgca tgggttaatt gagaatagaa atttgccctt ggcaa atgca     1200
cacacctcat gctagcctca cgaaactgga ataagccttc gaaaagaaat tgtccttgaa     1260
gcttgatatc gatatcagca ctggattgta gaacttgttg ctgattttga ccttgatttg     1320
aagttaactg ttccccctgg tatttgttta ataccctgta catatctttg agttcaacct     1380
ttagtacgtg tggcttggtc acttcgtggc taaggtaaga acgtgcttgt ggaagacaag     1440
tctgtggctt ggtgagtctg tgtggccagc agcctctgat ctgtgcaggg tattaacgtg     1500
tcagggtcga gtgttctggg atttctctag aggctggcaa gaaccagttg ttttgtcttg     1560
cgggtctgtc agggttggaa agtccaagcc gtaggacca gtttcctttc ttagctgatg     1620
tctttggcca gaacaccgtg ggctgttact tgctttgagt tggaagcggg ttgcatttac     1680
gcctgtaaat gtattcattc ttaatttatg taaggttttt tttgtacgca attctcgatt     1740
ctttgaagag atgacaacaa attttggttt tctactgtta tgtgagaaca ttaggccccca     1800
gcaacacgtc attgtgtaag gaaaaataaa agtgctgccg taacc                       1845

```

<210> 5
 <211> 375
 <212> PRT
 <213> Homo sapiens

<400> 5

Met Glu Glu Glu Ile Ala Ala Leu Val Ile Asp Asn Gly Ser Gly Met
 1 5 10 15

Cys Lys Ala Gly Phe Ala Gly Asp Asp Ala Pro Arg Ala Val Phe Pro
 20 25 30

Ser Ile Val Gly Arg Pro Arg His Gln Gly Val Met Val Gly Met Gly
 Page 5

35

```

Gln Lys Asp Ser Tyr Val Gly Asp Glu Ala Gln Ser Lys Arg Gly Ile
 50      55      60

Leu Thr Leu Lys Tyr Pro Ile Glu His Gly Ile Val Thr Asn Trp Asp
 65      70      75      80

Asp Met Glu Lys Ile Trp His His Thr Phe Tyr Asn Glu Leu Arg Val
      85      90      95

Ala Pro Glu Glu His Pro Val Leu Leu Thr Glu Ala Pro Leu Asn Pro
      100      105      110

Lys Ala Asn Arg Glu Lys Met Thr Gln Ile Met Phe Glu Thr Phe Asn
      115      120      125

Thr Pro Ala Met Tyr Val Ala Ile Gln Ala Val Leu Ser Leu Tyr Ala
      130      135      140

Ser Gly Arg Thr Thr Gly Ile Val Met Asp Ser Gly Asp Gly Val Thr
 145      150      155      160

His Thr Val Pro Ile Tyr Glu Gly Tyr Ala Leu Pro His Ala Ile Leu
      165      170      175

Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr His Tyr Leu Met Lys Ile
      180      185      190

Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr Thr Ala Glu Arg Glu Ile
      195      200      205

Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr Val Ala Leu Asp Phe Glu
      210      215      220

Gln Glu Met Ala Thr Ala Ala Ser Ser Ser Ser Leu Glu Lys Ser Tyr
 225      230      235      240

Glu Leu Pro Asp Gly Gln Val Ile Thr Ile Gly Asn Glu Arg Phe Arg
      245      250      255

Cys Pro Glu Ala Leu Phe Gln Pro Ser Phe Leu Gly Met Glu Ser Cys
      260      265      270

Gly Ile His Glu Thr Thr Phe Asn Ser Ile Met Lys Cys Asp Val Asp
      275      280      285

```

SequenceListing69544.txt

Ile Arg Lys Asp Leu Tyr Ala Asn Thr Val Leu Ser Gly Gly Thr Thr
290 295 300

Met Tyr Pro Gly Ile Ala Asp Arg Met Gln Lys Glu Ile Thr Ala Leu
305 310 315 320

Ala Pro Ser Thr Met Lys Ile Lys Ile Ile Ala Pro Pro Glu Arg Lys
325 330 335

Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu Ala Ser Leu Ser Thr Phe
340 345 350

Gln Gln Met Trp Ile Ser Lys Gln Glu Tyr Asp Glu Ser Gly Pro Ser
355 360 365

Ile Val His Arg Lys Cys Phe
370 375

<210> 6
<211> 375
<212> PRT
<213> Homo sapiens

<400> 6

Met Glu Glu Glu Ile Ala Ala Leu Val Ile Asp Asn Gly Ser Gly Met
1 5 10 15

Cys Lys Ala Gly Phe Ala Gly Asp Asp Ala Pro Arg Ala Val Phe Pro
20 25 30

Ser Ile Val Gly Arg Pro Arg His Gln Gly Val Met Val Gly Met Gly
35 40 45

Gln Lys Asp Ser Tyr Val Gly Asp Glu Ala Gln Ser Lys Arg Gly Ile
50 55 60

Leu Thr Leu Lys Tyr Pro Ile Glu His Gly Ile Val Thr Asn Trp Asp
65 70 75 80

Asp Met Glu Lys Ile Trp His His Thr Phe Tyr Asn Glu Leu Arg Val
85 90 95

Ala Pro Glu Glu His Pro Leu Leu Leu Thr Glu Ala Pro Leu Asn Pro
100 105 110

Lys Ala Asn Arg Glu Lys Met Thr Gln Ile Met Phe Glu Thr Phe Asn
115 120 125

SequenceListing69544.txt

Thr Pro Ala Met Tyr Val Ala Ile Gln Ala Val Leu Ser Leu Tyr Ala
130 135 140

Ser Gly Arg Thr Thr Gly Ile Val Met Asp Ser Gly Asp Gly Val Thr
145 150 155 160

His Thr Val Pro Ile Tyr Glu Gly Tyr Ala Leu Pro His Ala Ile Leu
165 170 175

Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr Asp Tyr Leu Met Lys Ile
180 185 190

Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr Thr Ala Glu Arg Glu Ile
195 200 205

Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr Val Ala Leu Asp Phe Glu
210 215 220

Gln Glu Met Ala Thr Ala Ala Ser Ser Ser Ser Leu Glu Lys Ser Tyr
225 230 235 240

Glu Leu Pro Asp Gly Gln Val Ile Thr Ile Gly Asn Glu Arg Phe Arg
245 250 255

Cys Pro Glu Ala Leu Phe Gln Pro Ser Phe Leu Gly Met Glu Ser Cys
260 265 270

Gly Ile His Glu Thr Thr Phe Asn Ser Ile Met Lys Cys Asp Val Asp
275 280 285

Ile Arg Lys Asp Leu Tyr Ala Asn Thr Val Leu Ser Gly Gly Thr Thr
290 295 300

Met Tyr Pro Gly Ile Ala Asp Arg Met Gln Lys Glu Ile Thr Ala Leu
305 310 315 320

Ala Pro Ser Thr Met Lys Ile Lys Ile Ile Ala Pro Pro Glu Arg Lys
325 330 335

Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu Ala Ser Leu Ser Thr Phe
340 345 350

Gln Gln Met Trp Ile Ser Lys Gln Glu Tyr Asp Glu Ser Gly Pro Ser
355 360 365

Ile Val His Arg Lys Cys Phe
370 375

SequenceListing69544.txt

<210> 7
 <211> 375
 <212> PRT
 <213> Homo sapiens

<400> 7

```

Met Glu Glu Glu Ile Ala Ala Leu Val Ile Asp Asn Gly Ser Gly Met
 1          5          10          15

Cys Lys Ala Gly Phe Ala Gly Asp Asp Ala Pro Arg Ala Val Phe Pro
          20          25          30

Ser Ile Val Gly Arg Pro Arg His Gln Gly Val Met Val Gly Met Gly
          35          40          45

Gln Lys Asp Ser Tyr Val Gly Asp Glu Ala Gln Ser Lys Arg Gly Ile
          50          55          60

Leu Thr Leu Lys Tyr Pro Ile Glu His Gly Ile Val Thr Asn Trp Asp
65          70          75          80

Asp Met Glu Lys Ile Trp His His Thr Phe Tyr Asn Glu Leu Arg Val
          85          90          95

Ala Leu Glu Glu His Pro Val Leu Leu Thr Glu Ala Pro Leu Asn Pro
          100          105          110

Lys Ala Asn Arg Glu Lys Met Thr Gln Ile Met Phe Glu Thr Phe Asn
          115          120          125

Thr Pro Ala Met Tyr Val Ala Ile Gln Ala Val Leu Ser Leu Tyr Ala
          130          135          140

Ser Gly Arg Thr Thr Gly Ile Val Met Asp Ser Gly Asp Gly Val Thr
145          150          155          160

His Thr Val Pro Ile Tyr Glu Gly Tyr Ala Leu Pro His Ala Ile Leu
          165          170          175

Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr Asp Tyr Leu Met Lys Ile
          180          185          190

Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr Thr Ala Glu Arg Glu Ile
          195          200          205

Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr Val Ala Leu Asp Phe Glu
          210          215          220
    
```

SequenceListing69544.txt

Gln Glu Met Ala Thr Ala Ala Ser Ser Ser Ser Leu Glu Lys Ser Tyr
225 230 235 240

Glu Leu Pro Asp Gly Gln Val Ile Thr Ile Gly Asn Glu Arg Phe Arg
245 250 255

Cys Pro Glu Ala Leu Phe Gln Pro Ser Phe Leu Gly Met Glu Ser Cys
260 265 270

Gly Ile His Glu Thr Thr Phe Asn Ser Ile Met Lys Cys Asp Val Asp
275 280 285

Ile Arg Lys Asp Leu Tyr Ala Asn Thr Val Leu Ser Gly Gly Thr Thr
290 295 300

Met Tyr Pro Gly Ile Ala Asp Arg Met Gln Lys Glu Ile Thr Ala Leu
305 310 315 320

Ala Pro Ser Thr Met Lys Ile Lys Ile Ile Ala Pro Pro Glu Arg Lys
325 330 335

Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu Ala Ser Leu Ser Thr Phe
340 345 350

Gln Gln Met Trp Ile Ser Lys Gln Glu Tyr Asp Glu Ser Gly Pro Ser
355 360 365

Ile Val His Arg Lys Cys Phe
370 375

<210> 8
<211> 375
<212> PRT
<213> Homo sapiens

<400> 8

Met Glu Glu Glu Ile Ala Ala Leu Val Ile Asp Asn Gly Ser Gly Met
1 5 10 15

Cys Lys Ala Gly Phe Ala Gly Asp Asp Ala Pro Arg Ala Val Phe Pro
20 25 30

ser Ile Val Gly Arg Pro Arg His Gln Gly Val Met Val Gly Met Gly
35 40 45

Gln Lys Asp Ser Tyr Val Gly Asp Glu Ala Gln Ser Lys Arg Gly Ile
50 55 60

SequenceListing69544.txt

Leu Thr Leu Lys Tyr Pro Ile Glu His Gly Ile Val Thr Asn Trp Asp
 65 70 75 80
 Asp Met Glu Lys Ile Trp His His Thr Phe Tyr Asn Glu Leu Arg Val
 85 90 95
 Ala Pro Glu Glu His Pro Val Leu Leu Thr Glu Ala Pro Leu Asn Pro
 100 105 110
 Lys Ala Asn Arg Glu Lys Met Thr Gln Ile Met Phe Glu Thr Phe Asn
 115 120 125
 Thr Pro Ala Met Tyr Val Ala Ile Gln Ala Val Leu Ser Leu Tyr Ala
 130 135 140
 Ser Gly Arg Thr Thr Gly Ile Val Met Asp Ser Gly Asp Gly Val Thr
 145 150 155 160
 His Met Val Pro Ile Tyr Glu Gly Tyr Ala Leu Pro His Ala Ile Leu
 165 170 175
 Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr Asp Tyr Leu Met Lys Ile
 180 185 190
 Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr Thr Ala Glu Arg Glu Ile
 195 200 205
 Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr Val Ala Leu Asp Phe Glu
 210 215 220
 Gln Glu Met Ala Thr Ala Ala Ser Ser Ser Ser Leu Glu Lys Ser Tyr
 225 230 235 240
 Glu Leu Pro Asp Gly Gln Val Ile Thr Ile Gly Asn Glu Arg Phe Arg
 245 250 255
 Cys Pro Glu Ala Leu Phe Gln Pro Ser Phe Leu Gly Met Glu Ser Cys
 260 265 270
 Gly Ile His Glu Thr Thr Phe Asn Ser Ile Met Lys Cys Asp Val Asp
 275 280 285
 Ile Arg Lys Asp Leu Tyr Ala Asn Thr Val Leu Ser Gly Gly Thr Thr
 290 295 300
 Met Tyr Pro Gly Ile Ala Asp Arg Met Gln Lys Glu Ile Thr Ala Leu
 305 310 315 320

SequenceListing69544.txt

Ala Pro Ser Thr Met Lys Ile Lys Ile Ile Ala Pro Pro Glu Arg Lys
325 330 335

Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu Ala Ser Leu Ser Thr Phe
340 345 350

Gln Gln Met Trp Ile Ser Lys Gln Glu Tyr Asp Glu Ser Gly Pro Ser
355 360 365

Ile Val His Arg Lys Cys Phe
370 375

<210> 9
<211> 8
<212> PRT
<213> Homo sapiens

<400> 9

Asp Leu Thr His Tyr Leu Met Lys
1 5

<210> 10
<211> 18
<212> PRT
<213> Homo sapiens

<400> 10

Val Ala Pro Glu Glu His Pro Val Leu Leu Thr Glu Ala Pro Leu Asn
1 5 10 15

Pro Leu

<210> 11
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> PROBE

<400> 11
gggtgttcaa ggtctca

17

<210> 12
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> PROBE

SequenceListing69544.txt

<400> 12
gtcagcagca atgggtgctc 20

<210> 13
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> PROBE

<400> 13
tgctcctcca gggccac 17

<210> 14
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> PROBE

<400> 14
gatgggcacc atgtgggt 18

<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> PRIMER

<400> 15
atggaagaag agatcgccgc 20

<210> 16
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> PRIMER

<400> 16
tcggccgtgg tggtgaa 17

<210> 17
<211> 8
<212> PRT
<213> Homo sapiens

<400> 17

Asp Leu Thr Asp Tyr Leu Met Lys
1 5

SequenceListing69544.txt

<210> 18
<211> 18
<212> PRT
<213> Homo sapiens

<400> 18

Val Ala Pro Glu Glu His Pro Leu Leu Leu Thr Glu Ala Pro Leu Asn
1 5 10 15

Pro Lys

<210> 19
<211> 18
<212> PRT
<213> Homo sapiens

<400> 19

Val Ala Pro Glu Glu His Pro Ile Leu Leu Thr Glu Ala Pro Leu Asn
1 5 10 15

Pro Lys